

ABSTRACT

Electrolyte solutions of soluble bifunctional redox dyes in molten salt solvent may be used to prepare electrooptic devices with enhanced stability toward ultraviolet radiation. The solvents include lithium or quaternary ammonium cations, and perfluorinated sulfonylimide anions selected from trifluoromethylsulfonate (CF_3SO_3^-), bis(trifluoromethylsulfonyl)imide ($(\text{CF}_3\text{SO}_2)_2\text{N}^-$), bis(perfluoroethylsulfonyl)imide ($(\text{CF}_3\text{CF}_2\text{SO}_2)_2\text{N}^-$) and tris(trifluoromethylsulfonyl)methide ($(\text{CF}_3\text{SO}_2)_3\text{C}^-$).